1   Attorney Docket No. 83996

2

3   DETECTION OF RANDOMNESS IN SPARSE DATA SET OF

4   THREE DIMENSIONAL TIME SERIES DISTRIBUTIONS

5

6   ABSTRACT OF THE DISCLOSURE

7   A two-stage method is provided for automatically

8   characterizing the spatial arrangement among data points of a

9   three-dimensional time series distribution in a data processing

10   system wherein the classification of said time series

11   distribution is required. The utilizes two-stage method

12   Cartesian grids to determine (1) the number of cubes in the grids

13   containing at least one input data point of the time series

14   distribution; (2) the expected number of cubes which would

15   contain at least one data point in a statistically determined

16   random distribution in said grids; and (3) an upper and lower

17   probability of false alarm above and below said expected value

18   utilizing a second discrete probability relationship in order to

19   analyze the randomness characteristic of the input time series

20   distribution.